

Constraints to smallholder agricultural production in the Western Cape, South Africa

Bongani Ncube

Centre for Water and Sanitation Research, Cape Peninsula University of Technology, Bellville Campus, Symphony Way, PO Box 1906, Bellville, 7535, Cape Town, South Africa



ARTICLE INFO

Keywords:

Smallholder farming
Institutional support
Information sharing
Breede-Gouritz Catchment Management Area

ABSTRACT

Improving agricultural production remains a major challenge for smallholder farmers in South Africa. The enactment of the 1998 Water Act and subsequent water allocation reforms were meant to correct equity challenges of the past in water allocation and increase agricultural productivity in the rural sector. More than 20 years after the initiation of the processes smallholder farmers remain poor with limited agricultural productivity. With the advent of more frequent droughts and the ever increasing climate change threat, the need to find lasting solutions for smallholder agriculture remains a priority for the government. So far the emphasis has been placed on water allocation, but could this be the only challenge to smallholder farmer livelihoods? South Africa is currently experiencing one of the worst droughts in history. Smallholder farmers who are already faced with water shortages have been the worst hit. The research sought to untangle some of the complexities of improving smallholder farmer livelihoods in the Breede-Gouritz Catchment Management Area (BGCMA) in the Western Cape, one of the first two catchment management areas to be created in South Africa. The main aim of the study was to assess constraints in addition to water, to the success of smallholder farmers in improving livelihoods. The specific objectives were to determine how institutional policies limited smallholder farmers from accessing resources in the Western Cape; to identify constraints affecting smallholder farmer performance and participation in agricultural activities. Interviews with farmers and key informants in government and other relevant institutions were conducted to determine how institutional arrangements have influenced and impacted the success of smallholder farmers. Results indicated uncoordinated institutional processes to support smallholder farmers resulting in limited participation by smallholder farmers in policy and strategy formulation. Farmer livelihoods were constrained by lack of information, limited access to water and lack of funding. The results and recommendations of the study were shared with the BGCMA and other relevant institutions with the aim of influencing future policy formulation for smallholder farmer livelihoods. The institutions decided to address the information gap through collaborative effort. The process has resulted in the creation of better relationships and trust between the smallholder farmers and the institutions.

1. Introduction

The South African National Water Act of 1998 has sustainability and equity as the central guiding principles in the protection, use, development, conservation, management and control of water resources. However, the process of resolving the equitable water allocation has taken very long; there are various unforeseen problems that both government and the implementation agencies continue to face, such as the failure to meet set targets. A large portion of the already allocated water still benefits the previously advantaged individuals, which implies that redress and equity are competing with other applicants for the remaining unallocated water (Department of Water and Sanitation (DWA), 2013). Section 61 and 62 of the Water Act (1998) provides for

the promotion of access to irrigated agriculture and sustainable irrigation development including grants for the acquisition of water entitlements for irrigation and grants for training the Management Committees of Water User Associations (WUA). Various reforms and direct support have been implemented in an effort to redistribute and equitably share water resources. The policy on financial assistance to resource-poor irrigation farmers (2004) is one such effort. The most recent efforts include Water Allocation reforms (Department of Water Affairs and Forestry (DWAF), 2008) that recommended that 30% of all water should be allocated to previously disadvantaged individuals by 2014 and 50% of this water should be in the hands of women. The reforms also recommended that 60% of the water should be in the hands of blacks by 2024 (Msibi and Dlamini, 2011). Despite all these

E-mail addresses: NcubeB@cput.ac.za, bonganincube02@gmail.com.

reforms in water especially for resource-poor farmers, water is given as the main reason for the conflicts (Levite et al., 2003). As a result, other pertinent issues that affect smallholder farmers have been ignored.

Smallholder farmers are defined as rural cultivators practising intensive, permanent, diversified agriculture on relatively small farms in areas of dense population by Netting (1997). The South African Department of Agriculture Forestry and Fisheries (Department of Agriculture, 2014) defines smallholder farmers as those farmers who produce for household consumption and markets subsequently earning on-going revenue from their farming businesses, which form a source of income for the family. Smallholder farmers have potential to expand their farming operations to become commercial farmers. In the Western Cape, there are 3 types of smallholder farmers, typical smallholders who own about 2 ha of land and use leased land in order to increase farmed area. Access to water has enabled these farmers to farm intensively and maximize resource use on the small pieces of land. The second group are small livestock farmers, who carry out their activities as individuals or groups. The third group is made of the historically disadvantaged individuals (HDIs) that include 'emerging' farmers. Emerging farmers are those farmers who obtained land under different schemes of the land reform process. In the former homelands, HDIs also include smallholder farmers who were settled in the farms many years ago. For the purposes of this paper, the terms smallholder and/or emerging farmer will be used to refer to all these different farmers, the common factor being resource limitation, as most of these farmers are generally classified as resource poor. In order to address the issue of resource poverty and inequality, there is need to focus on the whole agricultural system to understand where the major challenges are. The objectives of the study were, therefore, to determine how institutional policies and arrangements limit smallholder farmers from accessing resources; to identify constraints affecting smallholder farmer performance and to assess limits to the participation of smallholder farmers in agricultural activities.

2. Methodology

2.1. Site description

The study was carried out in the Breede-Gouritz Catchment Management Area (BGCMA). Fig. 1 shows the area covered by the CMA.

The CMA is divided into two surface water management areas, the Gouritz and Breede catchment areas. The areas are further subdivided into eleven hydrological sub-areas. The Breede catchments include the Upper Breede, Central Breede, Lower Breede, Riviersonderend, Overberg West and the Overberg East, while the Gouritz catchments include the Gamka, Groot, Olifants, Gouritz and Coastal sub-areas. The



Fig. 1. Breede-Gouritz catchment management area (DWA, 2012).

CMA covers four district municipalities; the Eden, Central Karoo, Cape Winelands and Overberg District Municipalities (Catchment Management Strategy for the Breede-Gouritz Water Management Area, 2017).

Water management in the CMA is carried out by different institutions at different levels. Institutions in this paper refers to organisations, the formal entities established to provide water-related services. Fig. 2 shows the water management institutions that are involved in agriculture and water management processes in the CMA. The Department of Water and Sanitation (DWS) is the highest water authority, followed by the catchment management agency (CMA). Below the CMA is the water user associations (WUA) which are the grassroots institutions. The WUA role is to manage the existing allocations and maintain the infrastructure. The Department of Rural Development and Land Reform (DRDLR) deals mainly with land re-distribution but they also assist farmers to apply for water. The Department of Agriculture is involved in both land and water applications. Municipalities have delegated authority to provide water to commonage land farmers who live on the outskirts of towns.

Smallholder (emerging) farmers from two contrasting sites were part of the research; namely the Barrydale Small Scale Farmers Association (BSSF) which faced major water challenges, and the Hex River Valley Water User Association (HVVWA) was which was running successfully. The two areas were selected through formal discussions with the Stakeholder Engagement Manager of the BGCMA in early 2013. The CMA was facing major challenges in addressing access to water by emerging farmers, although there were a few success stories, hence the decision to select contrasting areas. The comparison of the two areas would probably provide the opportunity for co-learning and cross-pollination of ideas and solutions.

The Barrydale Small Scale Farmers group was formed in 1993. Most of the farmers were born in Barrydale and they inherited the land from their parents, while few migrated from other areas. The group was originally made up of 34 members, 17 of black males and 17 black females. Some members had withdrawn and only twenty members of this group were actively involved in an attempt to farm sustainably. The group had an executive committee and a constitution in place. Members paid a fee of R120 per annum. The farms were and are still rented by farmers from the municipality, commonly referred to as commonage land. The group is not under a Water User Association, but are under the jurisdiction of Swellendam Municipality for their irrigation water supply.

The Hex River Valley Water User Association (HVVWA) was established in March 2007 after an extensive public participation process by all stakeholders. The HVVWA was formed from the transformation of the Hex Valley Irrigation Board, the Matroosberg Irrigation Board, the Groothoek Irrigation Board, the Bovenstewater Irrigation Board and the Rie Riviere Irrigation Board into one water user association, which is Hex Valley Water User Association. The water resources under control of the Hex Valley Water User Association include Valschatkloof, Spek, Sandriftkloof, Amandel, Bulshoek and Hex Rivers. The WUA has six emerging farmer members.

2.2. Analytical frameworks

2.2.1. The water governance framework

To develop a well-encompassed understanding of the challenges faced by emerging farmers, the concepts of 'resources' and 'mechanisms of process' were adopted from the Water Governance Framework (Fig. 3) developed by Franks and Cleaver (2007). People arrange their resources to create mechanisms of access through processes of negotiations, decision-making and actions with concerned actors and agents. Therefore, in this paper, the concept of 'processes' is understood to be the participation of emerging farmers in water resource management. The water governance framework provides an understanding of how various resources are arranged to establish a number of mechanisms of

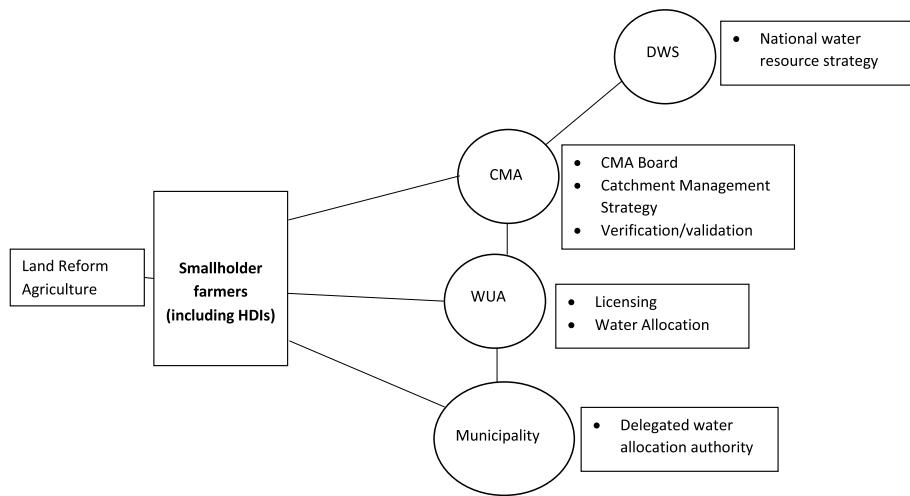


Fig. 2. Water Institutions and their roles in the BGCMA.

access which then produce an outcome which can positively or negatively affect the poor. The framework, therefore, creates a link between water governance and poverty (Franks and Cleaver, 2007). The framework is based on five concepts, resources, mechanisms of access, processes and agents and actors.

According to the framework, resources are material and non-material properties used to construct human governance of water. Material resources may include land, water, soil type, finances, and technology while non-material resources include institution resources, social structures, rights, and human capabilities. Giddens (1984) categorises the resources into two groups; allocative and authoritative. Allocative materials are considered as being raw materials and produce goods which generate power by having command over these resources and authoritative resources include relationships between people and human capacity which generates power over others.

Mechanisms of access refer to the manner in which actors put together their resources to establish arrangements for water governance (Franks and Cleaver, 2007). Mechanisms arranged from social resources may include access to water through family relations while the arrangement of rights resources can give an outcome of water access

through local property rights, strategies, and legislated minimum quantities of water. Other mechanisms include water user associations, local organisations, customary and modern land and water rights, water infrastructure and systems of water payments. For an emerging farmer, having material resources such as finances and non-material resources such as being a member of a water user association, catchment management agency, social relations, and human capacity, and the legislation can be used to draw up mechanisms to access water.

Outcomes of water governance for the poor include access to water, the establishment of relevant mechanisms, and improved livelihoods (Franks and Cleaver, 2007). Access to water does not only imply access to the physical resource but also includes quantity, quality, periods of water availability, and sharing of power on governance and management of water.

The framework defines processes to be conceptualized as the deliberate and undeliberate actions of negotiating and decision-making which bring about changes in the composition and arrangement of resources, mechanisms and outcomes. For example, social resources such as gender traditionally have a negative impact on women's rights to water and land but through negotiations, such rules can be changed and thus

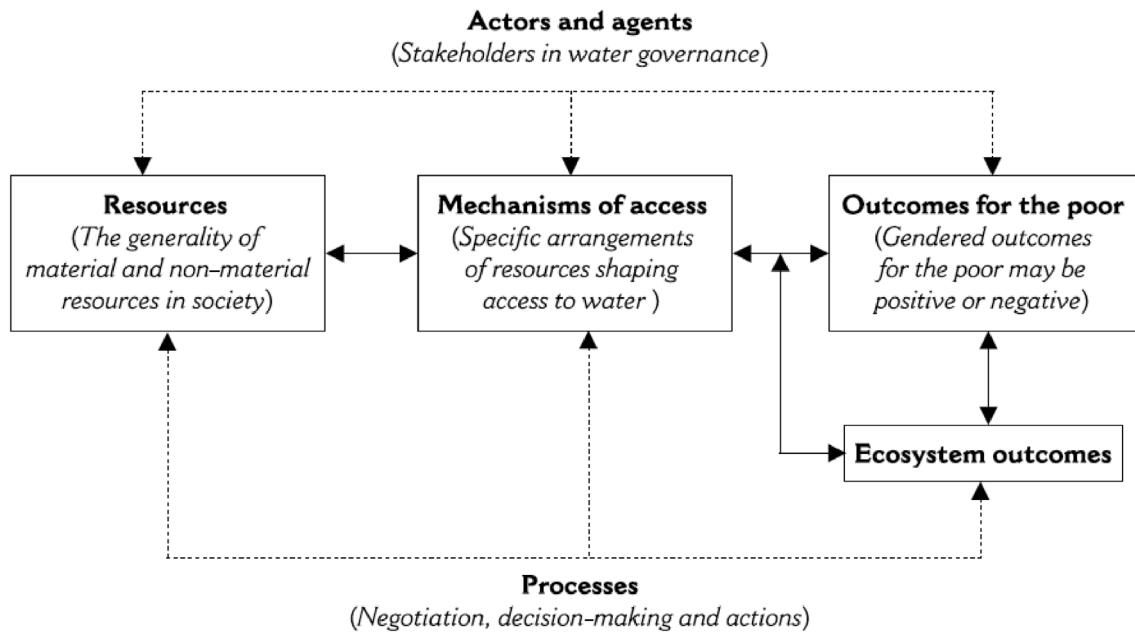


Fig. 3. Framework for water governance (Franks and Cleaver, 2007).

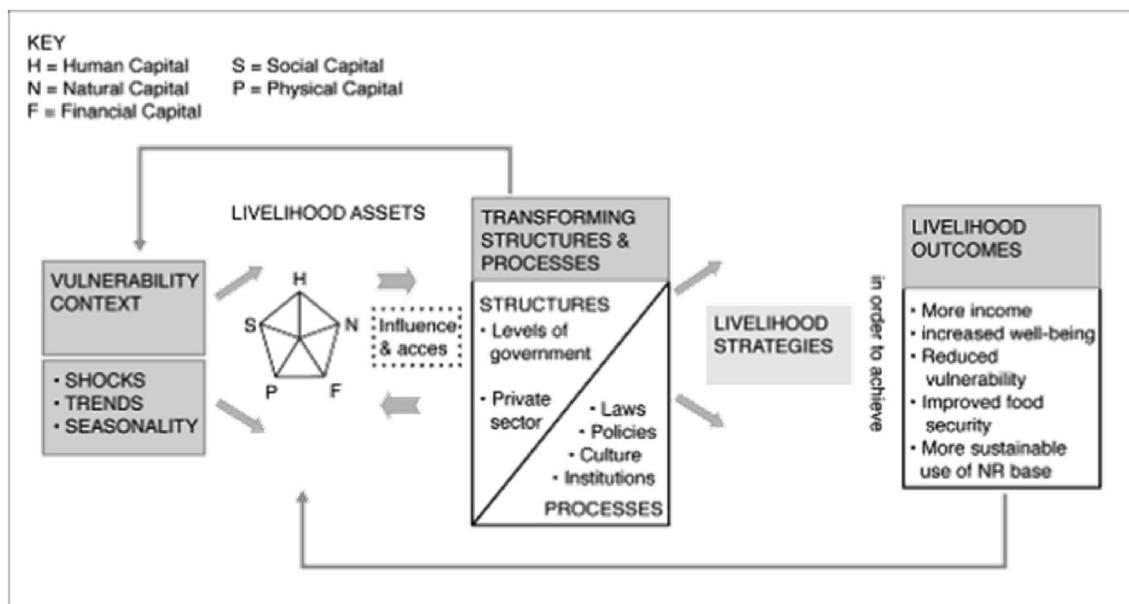


Fig. 4. Sustainable livelihoods approach (DFID, 2000).

it can be possible for a woman to own land, apply for a water license, join a water user association, and subsequently have access to water.

Agents imply all the actors that interact within the water governance framework. Additionally, they have power over resources and shape mechanisms and vice-versa but can also be shaped by resources and mechanisms. These include communities, water institutions, civil society, non-governmental organisations, government and engineers.

2.2.2. The Sustainable Livelihoods Approach (SLA) framework

The research also adopted the five capitals of the Sustainable Livelihoods Approach (SLA) framework (DFID, 2000; Fig. 4). The SLA places communities at the centre of development and makes it possible for researchers and the development world to conceptualise intervention programmes differently (Chambers, 1994). In most cases, the development sector and government fail to capture the priorities and complexities of daily struggles towards better livelihoods therefore it is argued that the SLA is able to provide an understanding that is closer to the realities of the people receiving the intervention (*ibid*).

The SLA framework shows that access to the five capitals (natural resources, financial, human, social, and physical) as well as the manner in which they integrate is the key in achieving sustainable livelihoods (Baumann, 2002; Scoones, 1998). This comes from an understanding that people require a number of capitals to have positive livelihood outcomes, especially rural poor people whose access to certain capitals might be limited as a result they often find innovative ways to ensure sustainability of their livelihoods (IDFID, 2000).

The application of the framework in this research, therefore, suggested that water access and farming activities for smallholder and emerging farmers, in general, are integrated with other aspects that make up livelihoods. The framework allowed for a deeper analysis of the complex nature of farming activities, water access, and livelihood assets at large. The details of the application of the framework are presented in a separate thesis. Carney (1999) suggests that the framework does away with assumptions of what rural people need and how they will achieve their goals. Instead, it gives an accurate picture of the smallholder farmers, their surroundings, and identifies limitations in enhancing their livelihoods, in this case, access to water. In addition to five capitals, the SLA framework indicates that organisational and institutional factors also influence the outcome of sustainable livelihoods. This paper is more focused on the organisational and institutional arrangements; an analysis of the role and impact of the different

organisations and institutions on emerging farmer/smallholder farmer access to water.

2.2.3. Data collection

A desktop review of the strategic functions of each of the identified institutions was carried out. Semi-structured interviews were carried out with the identified stakeholders, and where possible group meetings were organized. Interviews with farmers and key informants in government and other relevant institutions were also conducted to determine how institutional arrangements had influenced and impacted the success of smallholder farmers in the BGCMA.

Repeated focus group discussions and individual interviews were conducted with smallholder/emerging farmers in both BSSFA and the HVWUA over a period of three years. A focus group discussion is a qualitative data collection tool where a group of people are interviewed (CDC, 2008). It is used to obtain more in-depth data from a group in relation to their feelings, beliefs, attitudes, and experiences. Additionally, a focus group can be used as a tool to collect information that might have been missed out in the previous tools. The focus group discussions in this research were used to identify challenges, develop cause and effect diagrams, problem analysis, and to rank the priorities of the farmers. Individual interviews were used to collect data on capitals (human, social, natural, physical financial) as defined by the sustainable livelihoods framework (see Scoones, 1998). This paper presents mainly the results of institutional processes and challenges faced by the farmers. The details on the capitals are presented in a separate publication.

3. Results and discussion

3.1. Challenges to institutional support to smallholder farmers

Table 1 shows a summary of support services provided by different institutions to smallholder farmers in the BGCMA.

The water user association is the lowest unit of governance in water resource management where smallholder farmers can participate. The interviewed WUA sees itself as the most appropriate institute to govern water issues at the lowest level, the CMA concurred with this. Analysis of relationships between the WUA and the BGCMA and discussions with smallholder farmers also seemed to support this view. However, some challenges were identified as hindering effective support to smallholder

Table 1
Institutional Support to smallholder/emerging farmers.

Institutions	Support to smallholder farmers
Department of Water and Sanitation (DWS)	<ul style="list-style-type: none"> • Provides water infrastructure • Implement water policies especially the transformation of irrigation boards into water user association • Build capacity within Breede-Gouritz Catchment Management Agency in order to enable transformation of irrigation boards into water users associations
Breede-Gouritz Catchment Management Agency (BGCMA)	<ul style="list-style-type: none"> • Improve the processes of accessing water • Transforming irrigation boards into water user association • Once the water users association has been established, the BGCMA should ensure that there is transformation within the association in order to ensure that equity does take place • Facilitate the process of emerging farmers being part of a water user association • Manage existing water allocation as a combined system • Own and maintain infrastructure • Check lawful use of water • Plan for the future with BGCMA and water utilities • Supply water to emerging farmers • Preserve the environment by enforcing the reserve
Hex Valley Water User Association (HVVUA)	<ul style="list-style-type: none"> • Ensure sustainable water supply • Build canals and dams to provide water to farmers • Support of grants which farmers use to buy livestock • Supporting farmers with materials such as pumps and pipes • Support in the area of farming knowledge • Provide land to previously disadvantaged smallholder farmers • Provide financial management and accounting services • Provide financial grant to previously disadvantaged smallholder farmers • Provide strategic support on land reform farms' value chain
Swellendam Municipality	
Department of Agriculture (DoA)	
Department of Rural Development and Land Reform (DRDLR)	

farmers; the status and access to the capitals, the water user association (WUA) as the platform for smallholder farmers to access water, representation of smallholder farmers in a WUA, access to land without a guarantee to water access, and lack of integration amongst departments.

3.1.1. Status and access to different capitals

Table 2 summarizes the status and access to the different types of capitals (human, social, natural, physical and financial) by the farmers in BSSF and HVWUA.

There were huge differences in the five capitals between Barrydale and Hex Valley emerging farmers. The details of the implications of these capitals are presented in a separate publication. This paper focuses on the institutional processes and challenges faced by the farmers, but it is important to understand that the challenges were not just in the institutional processes, but also in resource (capital) endowment and access.

3.1.2. The water user association as a platform for accessing water

WUAs seem to have an old culture of operation. Although WUAs are supposed to be an entity of water users and the community at large, the

associations simply transformed from irrigation boards to WUAs and made minimal changes made to accommodate the new members, especially those previously disadvantaged. This is one of the biggest challenges for members of the WUA that has made it difficult to accommodate the interests of the new stakeholders in the WUA, especially black smallholder farmers who do not have resources. The HVWUA had however made all effort to be inclusive of the farmers who are members to such an extent that they see themselves as businessmen like the rest of the commercial farmers.

The lack of a clear definition of 'transformation' remains the biggest challenge in working with WUA to assist smallholder farmers in the Breede-Gouritz Catchment Management Agency (BGCMA). Different people and groups interpret the word differently. Currently, there is no clear definition and guide to what actually the transformation of the WUA is. Black people might feel transformation is 80% black representation in a WUA while white people might feel that transformation is 80% white because they own the land, water, and infrastructure. These were the sentiments of some of the people that the BGCMA deals with. Therefore, the national office of the Department of Water and Sanitation needs to relook at what exactly transformation means and how it can be achieved. This would make it easier for the

Table 2

Summary of the status of capitals in Hex River Valley Water User Association (HVVUA) and the Barrydale Small Scale Farmers Group.

Capital	Hex Valley Water User Association	Barrydale
Famer characteristics and human capital	<ul style="list-style-type: none"> • Educated businessmen • Trained in farming skills • Access to mentorship from commercial farmers 	<ul style="list-style-type: none"> • Unemployed, self-employed or retired individuals • Learnt farming from their parents or interest
Social Capital and Roles	<ul style="list-style-type: none"> • Belong to water user association • Access to mentors 	<ul style="list-style-type: none"> • Do not belong to water user association • Rely on one farmer leader for information • Do not own land
Land and water (natural capital)	<ul style="list-style-type: none"> • Own 30–50 ha of land • Have access to long leases on land • Access to water through HVWUA • Pooling system ensures reliable water supply 	<ul style="list-style-type: none"> • Short leases to land with no security • Small plots, 1–2 ha for most farms • Last priority to access water through municipality dam • Experience seasonal water shortages
Physical Capital	<ul style="list-style-type: none"> • Access to WUA infrastructure • Can access loans to purchase equipment 	<ul style="list-style-type: none"> • Limited access to infrastructure, one tractor for the whole group • One dam for all farmers • Rely on own funding for farming • Limited access to grants and loans
Economic and Financial	<ul style="list-style-type: none"> • Government provides grants and loans • Support from government and catchment management agency 	

local departments to do their work and assist smallholder farmers to gain access to water. The lack of this definition has allowed for misinterpretation of how much water should go to newly settled emerging farmers. An amount of 2% of water was allocated to black farmers or previously disadvantaged farmers by WUAs. The Water Allocation Reform Strategy (2008) stated that by 2014, 30% of the water should have been in the hands of the black people. It is not clear how this could have been possible with the current allocations of the WUAs. Additionally, when one looks deeper, the 2% of water goes to white commercial farmers that have black beneficiaries through the equity schemes. In the end, one could argue that the water is still benefitting the white commercial farmer as the allocated water rights will remain on the farm when the black beneficiaries are no longer in farming. This is something that BGCMA has no control over. There need to be certain measures put in place to ensure that the 2% allocation benefits the right people, such as transferring the water rights to the beneficiaries.

The BGCMA also raised concerns over the plans to restructure WUAs that was to be carried out by DWS to speed up transformation. The national DWS office had not communicated clearly what exactly will be done and how in the regional offices, especially how the DWS and CMA, would contribute towards restructuring of WUAs. BGCMA was not certain whether DWS wanted to restructure representation or water rights. It also appeared as if the national office of DWS was not clear on what challenges were faced by the WUAs and other institutions working with them to achieve transformation.

DWS added that the decision makers needed to understand challenges faced at the local level since those that experience these challenges do not have the power to make any changes. The policy position held by the national DWS where the issue of restructuring WUAs is being discussed shows lack of common understanding of what will be restructured in WUA and how that change will be achieved. DWS Western Cape believes that attention should be paid to current challenges and not simply change names as it was done with irrigation boards. Transformation needs to take place within WUAs and not simply restructuring them.

3.1.3. Representation of emerging/smallholder farmers in a WUA

In 1998 there were 278 irrigation boards in South Africa, and by June 2017 only 99 had been transformed into WUAs. Another 100 irrigation boards still needed to be transformed (Parliamentary Committee on Water and Sanitation, June 2017). The representatives of DWS explained some of the reasons for this. There were challenges of access to land and finding representatives of black people in the WUA board, especially females. Some irrigation boards had applied to be converted into a WUA but these applications had been rejected by the DWS national office because the proposed management structure of the new WUA did not meet the requirements. The DWS also expressed that was difficult to train people to sit in the WUA board while they did not have access to land and water or did not even practise farming. There was often a lack of incentive to take up such positions.

The Breede-Gouritz Catchment Management Agency (BGCMA) also identified the representation of black people in WUA as a challenge that limits their access to water. As already identified by Faysse (2004) the core functions of WUAs do not solve the problems of HDIs' with regard to water. In most WUAs the decision making power still lies in the hands of commercial farmers because they own land and have water rights, thus it was only the name of the institution that changed but not the rules a finding also confirmed by Kemerink et al. (2013), and recently by the Water and Sanitation Parliamentary Committee (June 2017). The research also found that the new representatives of black people in the WUA do not necessarily have power. "Once you have been allocated water in a WUA you have to continue to fight" were the sentiments expressed by an emerging farmer in an address to Barrydale Small Scale Farmers (2016). Most representatives of previously disadvantaged people/farmers were simply placed in the WUA boards to

balance the number of representatives and to meet certain criteria. As a result, there are black representatives who attend WUA board meetings but do not contribute towards decision making. Often, these representatives eventually stop attending meetings as they realise that it is a waste of their time. Most of the representatives of previously disadvantaged farmers do not have land and water rights and thus there is little interest to make meaningful decisions unwillingness to contribute to redress and equity amongst some stakeholders. The rules and guidelines developed by the DWS national office for establishing a WUA are largely to blame for the failure of this institution as a platform for equitable water access. This was also confirmed by (Msibi and Dlamini, 2011). DWS expects white commercial farmers to fund, build capacity, and perform activities that they initially did not engage in with the establishment of WUA. The inclusion of other stakeholders in the boards requires a long period of capacity building which should not only be expected from the white commercial farmers. These are some of the reasons why the water sector is questioning the appropriateness of WUA as a platform for access to water for black people. The BGCMA also recognised that they had not played a major role in capacitating the members of the WUA, especially black farmers. According to one influential farmer who was not in a WUA "The BGCMA is toothless and has too little power to solve problems" (Barrydale commercial farmer interview, 2015).

3.1.4. Access to land without guarantee to water

Access to farming land without access and rights to water was one of the biggest challenges facing smallholder farmers in Barrydale. Almost all the farmers in Barrydale were leasing the land from the municipality on contracts ranging from 1 year to 9 years 11 months. The connection between access to land and access to water has been largely ignored. DWS national needs to explore ways of securing land sustainably for smallholder farmers and not focus on water. This might call for greater collaboration between different government departments. The participants agreed that the policies of the different institutions engaging and assisting emerging farmers did not speak to one another. There needs to be an alignment of the different policies, starting with defining the terms such as 'previously disadvantaged people' and transformation. These terms are interpreted differently by the different institutions. According to Msibi and Dlamini (2011), there is a need for closer coordination between land reform and water allocation reform with land reform being the driver for the water allocation reform. The Department of Rural Development and Land Reform (DRDLR) needs to improve their decision making processes in allocating land by engaging with other relevant departments. The handing over of farming land without access to water to smallholder farmers had caused a lot of challenges for the BGCMA and WUAs.

3.1.5. Lack of integration amongst departments

Lack of integration between the institutions assisting the smallholder farmers was identified at an institutional workshop in October 2015 as one of the biggest challenges. The Western Cape Department of Agriculture (DoA) has different categories of black farmers; subsistence, smallholder, and commercial. These farmers have different needs which the department addresses separately. They especially want to develop subsistence and smallholder farmer production into commercial. However, this process takes time. Other institutions also have their own strategies for assisting smallholder/emerging farmers which are not aligned with the DoA. The department works closely with DRDLR, BGCMA and DWS in assisting farmers in applying for grant/subsidy for products such as the acquisition of water allocation and rain-water tanks for household productive uses by the poor through the Provincial Coordinating Committee on Agricultural Water (CCAW). However, beyond this committee, there is no further engagement among the institutions.

It is generally agreed that the policies of the different institutions of engaging and assisting smallholder/emerging farmers do not speak to

Table 3

Socio-economic impacts on smallholder farmers.

Factors	Conducive Conditions	Constraints
Perceptions	<ul style="list-style-type: none"> Commercial farmers are willing to mentor emerging farmers, and where this is established emerging farmers have benefited a lot. 	<ul style="list-style-type: none"> Some commercial farmers are under the impression that smallholder/emerging farmers are free riders Emerging farmers are under the impression that commercial farmers do not want to share water There is social and economic heterogeneity within WUA board members which increases potential for disputes and 'capture' of leadership positions by elite
Power relations	<ul style="list-style-type: none"> Democratic policy of WUA are in line with the government's policies Democratic political environment of BGCMA is in line with the government's policies 	
Farmer incentives	<ul style="list-style-type: none"> All water users need water 	<ul style="list-style-type: none"> There is no form of communication between smallholder farmers and their WUA board representatives Commercial farmers might not see value in the new WUA and cling on to old structure (irrigation boards).

one another. There needs to be an alignment of the different policies, starting with defining the terms such as 'previously disadvantaged people' and transformation. These terms are interpreted differently by the different institutions.

3.2. Major challenges faced by smallholder farmers

3.2.1. Socio-economic challenges

There is still a lot of mistrust in the water resources management playfield in South Africa. There are certain characteristic perceptions and power relations among the farmers that will take a long time to change. The role of incentives seems to be a bone of contention to existing commercial farmers as they feel that new farmers are having it easy. **Table 3** summaries some of the pertinent socio-economic issues identified during discussions with farmers in the BGCMA.

3.2.2. Lack of information sharing

Smallholder farmers from both case study areas highlighted lack of information sharing as a limiting factor in accessing resources. The institutions agreed that emerging/smallholder farmers are not aware of the supporting structures, for example, the DoA in the Western Cape has programmes that have been put in place to assist smallholder/emerging farmers to develop business plans and make a success of the farming. However, the farmers do not make use of this support because they do not know which offices to approach, or the offices are too far from their homes. Emerging farmers also have different sets of problems. A farmer who owns the land has different challenges compared with the one who is farming on commonage leased land. The farmers on commonage land wanted the security of ownership, but those who owned land did not have access to water. Therefore, the approach used to communicate assistance programmes to these different farmers varies.

DWS acknowledged that information sharing is also hindered by the institutions. Sometimes the representatives of emerging farmers invited to workshops are not the right people to share information. This might be due to the low levels of literacy or time. However, the institutions overlook such issues and keep inviting the same representatives. Information is lost in meetings and workshops. There need to be other ways of sharing information with farmers as this aspect is vital for farmers and institutions in assisting each other.

There was a suggestion that the easier way for smallholder farmers to access information would be the consolidation of all the support programmes offered by the different institutions into one package. Farmers can, therefore, go to one institution for all their enquiries instead of being sent to different offices. The DoA is tried to achieve this with their own programs, but they need to work with other institutions that assist smallholder farmers to be successful.

Some emerging farmers are aware of support structures put up by the different institutions for them. However, some emerging farmers have a tendency to handpick assistance that they think is good for them. DWS indicated that they often come across farmers that are not

interested in being mentored by business people although the department communicated the importance of this skill. This behaviour was expressed as also common amongst emerging farmers guided by the extension officers of DoA. Sometimes the emerging farmers do not accept the facts and do know that the government does support them but they simply disregard that knowledge.

3.2.3. Land rights/long term leases

Institutions agreed that land ownership and long-term lease play a big part in determining whether an emerging farmer is eligible to receive support from institutions. DWS is limited by their policy to offer support to emerging farmers that own land or have long-term leases. The WUAs overlook this policy on a humanitarian basis and they provide water to emerging farmers that are struggling to lease or own land. However, this is not a long-term arrangement.

3.2.4. Business plans

All farmers are required to have a business plan prior to receiving assistance from government institutions. DWS indicated that the first document required prior to assisting the farmer is a business plan. The business plan allows the department to check if the farmer has met certain criteria. There are cases where farmers have farming skills but do not have a business plan. This is usually the case and the department is not able to fully assist these farmers.

BGCMA highlighted that the business plan is not the only factor that should be looked at prior proving assistance to an emerging farmer. The passion of farming is something that successful farmers share. However, this aspect is simply overlooked while much focus is given to a business plan. Most emerging farmers who had access to institutional support failed simply because they lacked passion and skill for farming.

4. Possible solutions to smallholder farmer problems

It is true that the Water Allocation Reform process has not been successful in allocating water to emerging farmers in the Breede-Gouritz CMA. During discussions with the BGCMA it was concluded that the reasons for this were related to three areas:

- The CMA is water stressed, therefore the implementation of set-asides is difficult
- The riparian rights and lawful use that commercial farmers have cannot be tampered with in many instances
- Lack of funds to explore other alternatives such as groundwater or building more dams.

There are however other challenges that are not directly water related that also affect emerging smallholder farmers. The effectiveness of the water user association (WUA) as a platform for smallholder farmers to access water remains questionable. Farmer access to land without the guarantee to water access is a huge challenge for commonage land

Table 4

Smallholder farmer challenges and possible solutions.

Challenges	Possible Solutions
Shortage of water for agricultural activities due to lack of infrastructure to capture and store water. They experience seasonal shortage of water and the water is also too expensive for certain individuals.	<ul style="list-style-type: none"> • Create equal access • Build more storage dams • Drill more boreholes • Solar pumps for pumping water from boreholes • Government should intervene • Leadership should revive the farmer groups • Leadership should be open and the chairman of the group should share all relevant information • Farmer training programs needed • Start-up programmes e.g. cow/heifer schemes • Apply for funding as a group
Lack of information on water legislation and processes. Suspicions that the municipality and leadership are withholding information. Farmers do not know who is in charge in the council, and there is lack of information sharing within the group. Farmers also lack training in farming	
Lack of funding and no access to grants and loans has resulted in lack of or inappropriate infrastructure. Funding for emerging/smallholder farmers is also not understood. There are no start-up programmes to support farmers.	
Land shortage was an issue as farmers do not have contracts for land, and if there, the contracts are short and the rules of using land are not clear. Some plots are too small.	<ul style="list-style-type: none"> • Farmers want to own the land • Since they cannot afford to buy land, it should be given to them for free.

farmers. There is lack of integration amongst departments resulting in duplication of efforts and ineffective implementation of processes.

The BSSFA outlined the major challenges that they faced. Through focus group discussions the farmers also suggested what they felt would be best approaches to solving their problems. Table 4 summarizes the problems and possible solutions as suggested by the smallholder farmers.

5. Intervention by the institutions

When the research findings were presented to the water institutions they unanimously decided to tackle some of the problems. The issue of lack of integration was given priority because all institutions appreciated the need to work together to solve farmer problems. Therefore, since January 2016 the institution representatives from BGCMA, DoA, DWS, HVWUA, CPUT, Barrydale Small-Scale Farmers, DRDLR and the African Farmer's Association of South Africa (AFASA), regularly met and brainstormed activities that could be immediately implemented. The institutions agreed to develop a comprehensive information package for smallholder farmers that would include all the support available for smallholder/emerging farmers. The comprehensive package was drafted by all institutions. All institutions tested the appropriateness of the package through a pilot information roadshow that was held in Barrydale in early November 2016. The pilot roadshow was a huge success (62 people attended) with farmers expressing their gratefulness in seeing all the institutions in one place. A number of critical issues were raised and the institutions were able to clarify most of them. A query list was compiled and each institution was tasked to follow-up issues related to their organisation. The institutions met and reflected on the effectiveness of the information sharing approach. It was agreed that a café style approach would be more effective in the subsequent roadshows so that the farmers could have one-to-one discussions with the institutions instead of the large group. This proved to be very effective. The next roadshow attracted 106 people, more than 90% of them smallholder farmers. The Land Bank also joined the initiative.

To date, 5 successful roadshows have been held in major farming towns in the Western Cape, attracting 50–80 people each time, and the institutions are committed to continuing until all the smallholder farmers have been reached. Beyond the roadshows, the information package will be hosted on the website of the BGCMA to be accessible through all institutions via links. A free web application will also be developed to be accessible to everyone via mobile phones. Report back and follow-up sessions will continue and it is envisaged that the positive relationship created between the institutions and the farmers will continue for years to come.

Acknowledgements

The research was funded by the Water Research Commission (Project No.K5/2310). Private Bag X03, Gezina, 0031, South Africa. In-kind contribution from the Breede-Gouritz Catchment Management Agency and the Western Cape Department of Agriculture is also acknowledged.

References

- Baumann, P., 2002. Improving Access to Natural Resources for the Rural Poor. A Critical Analysis of Central Concepts and Emerging Trends from a Sustainable Livelihoods Perspective. LSP Working Paper (FAO).
- Carney, D., 1999. Approaches to Sustainable Livelihoods for the Rural Poor. Overseas Development Institute, London, pp. 32.
- CDC, 2008. Data Collection Methods for Program Evaluation: Focus Groups. Evaluation Briefs.
- Chambers, R., 1994. The origins and practice of participatory rural appraisal. *World Dev.* 22 (7), 953–969.
- Department for International Development (DFID), 2000. Sustainable Livelihoods Guidance Sheets. <https://www.eldis.org/vfile/upload/1/document/0901/section2.pdf>.
- Department of Agriculture, Forestry and Fisheries, 2014. DAFF Annual Report 2013/14.
- Department of Water Affairs and Forestry (DWAF), 2008. Water Allocation Reform Strategy, (September).
- Department of Water Affairs (DWA), 2012. Business Case for the Breede-gouritz Catchment Management Agency.
- Department of Water Affairs (DWA), 2013. National Water Resource Strategy: Water for an Equitable and Sustainable Future. pp. 201.
- Faysse, N., 2004. Challenges for fruitful participation of smallholders in large-scale water resource management organisations: selected case studies in South Africa. *Agrekon* 43 (1), 52–73.
- Franks, T., Cleaver, F., 2007. Water governance and poverty: a framework for analysis. *Prog. Dev. Stud.* 7 (4), 291–306.
- Giddens, Anthony, 1984. *The Constitution of Society: outline of the Theory of Structuration*. Univ of California Press.
- Irrigation Boards and Water Master Plan: Department of Water and Sanitation briefing, with Deputy Minister; Parliamentary Monitoring Committee: Water and Sanitation, 20 June 2017.
- Kemerink, J.S., Méndez, L.E., Ahlers, R., Wester, P., van der Zaag, P., 2013. The question of inclusion and representation in rural South Africa: challenging the concept of water user associations as a vehicle for transformation. *Water Pol.* 15 (2), 243–257.
- Lévité, H., Faysse, N., Ardonino, F., 2003. Resolving water use conflicts through stakeholder participation: issues and examples from the Steelpoort basin in South Africa. *African Water Journal* 12, 32–44.
- Msibi, M.I., Dlamini, D.S., 2011. Water Allocation Reform in South Africa: History, Processes and Prospects for Future Implementation.
- Netting, R.M., 1997. Smallholders, householders: farm families and the ecology of intensive, sustainable agriculture. In: Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture, vol 53. pp. 28. [http://doi.org/10.1016/S0308-521X\(96\)00024-8](http://doi.org/10.1016/S0308-521X(96)00024-8).
- Scoones, I., 1998. Sustainable Rural Livelihoods: a Framework for Analysis. IDS Working Paper 72. IDS, Brighton. <http://opendocs.ids.ac.uk/opendocs/handle/123456789/3390>.